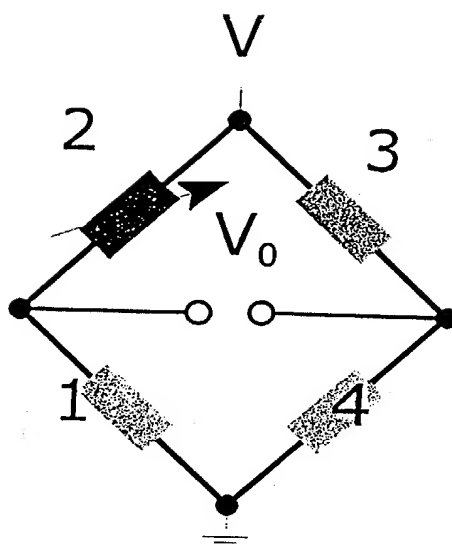
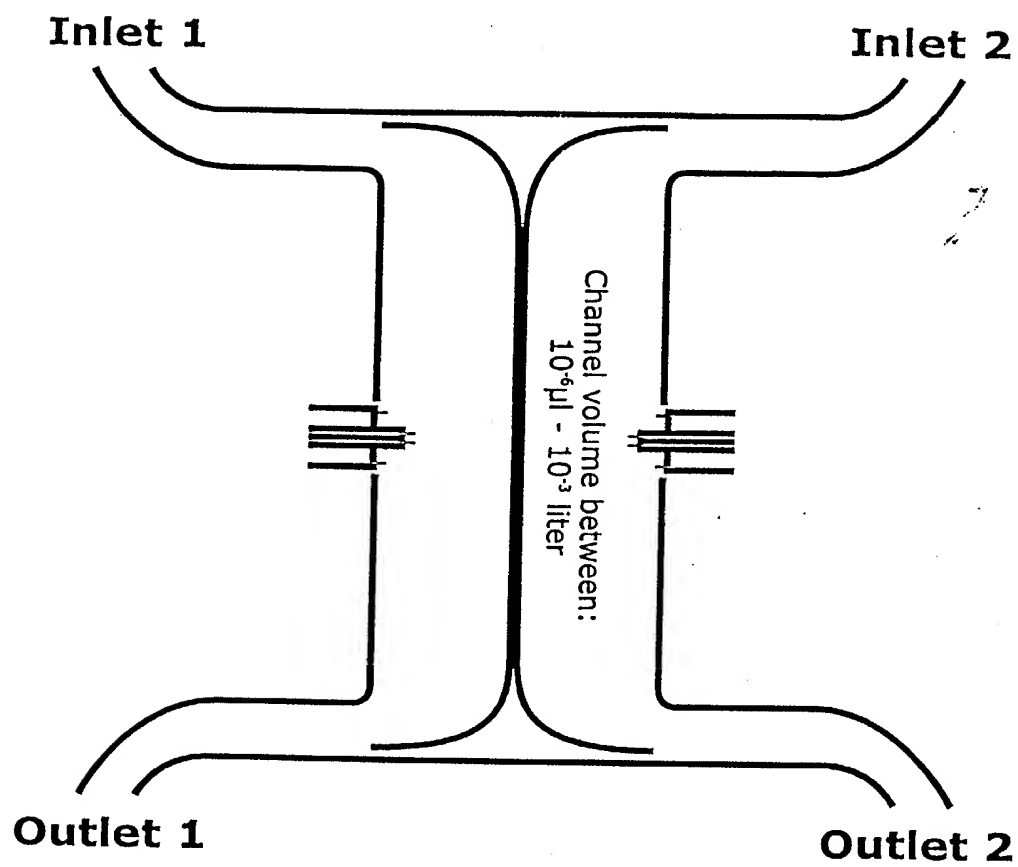


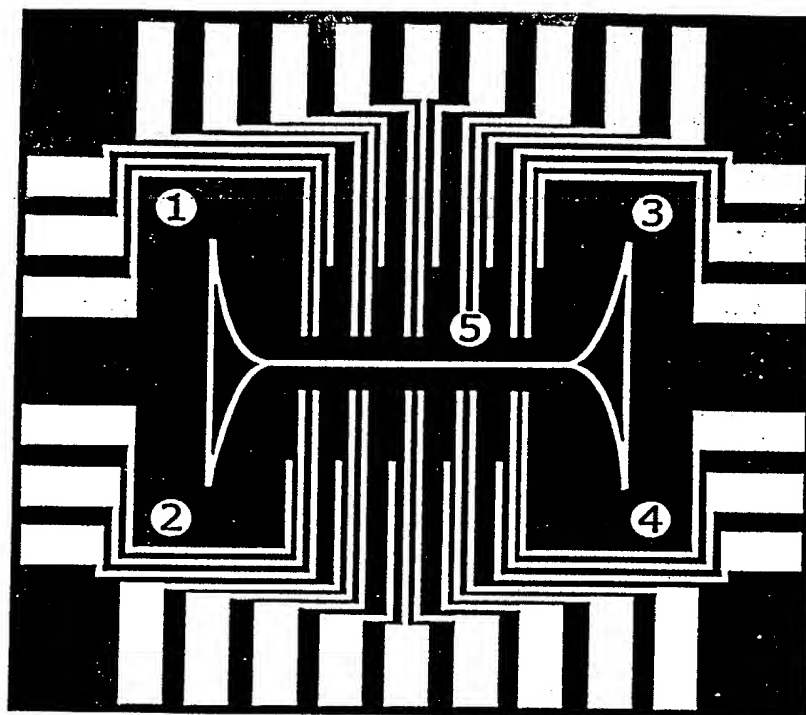
000000 79111600





Flow channel from above

A.



Micro-cantilever, enlarged

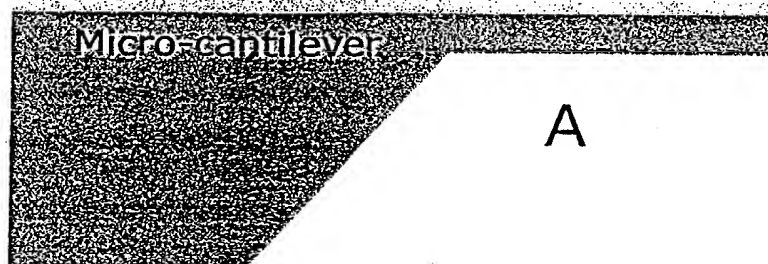
Channel volume between:
 $10^{-6}\mu\text{l}$ - 10^{-3} liter

B.

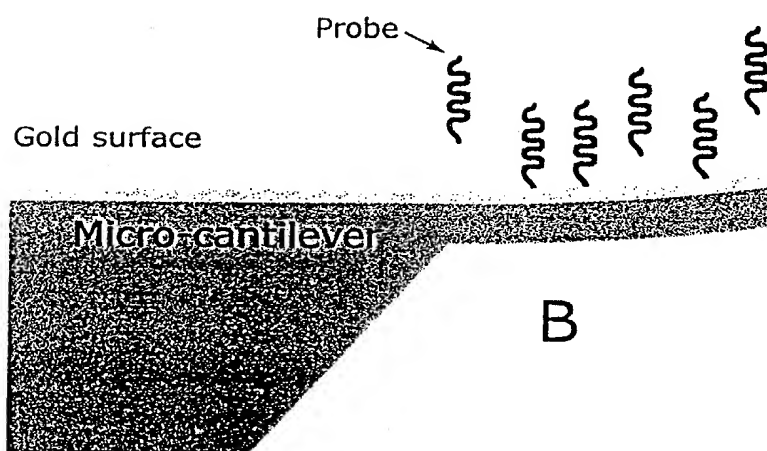


Micro-cantilever, actual size

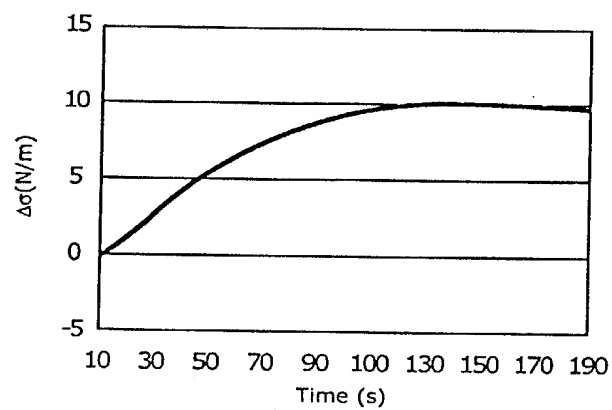
Gold surface



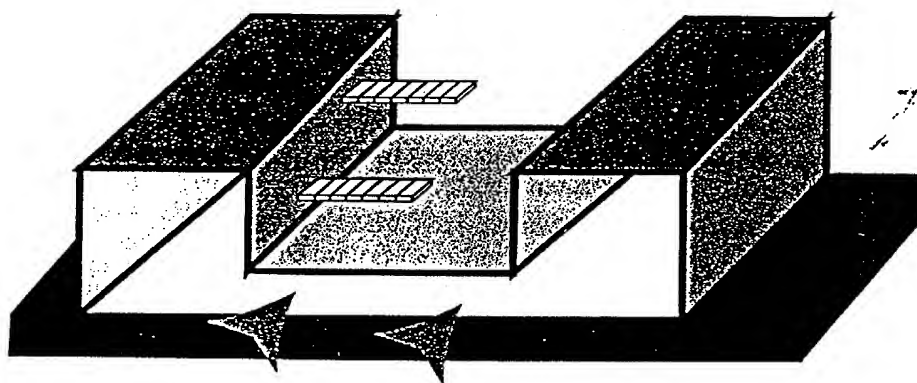
- The oscillating cantilever



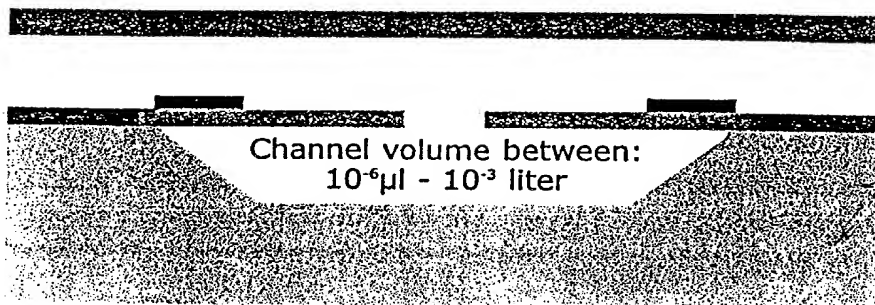
- The oscillating cantilever with attached probe



Channel volume between:
 $10^{-6}\mu\text{l}$ - 10^{-3} liter



Flow channel from side in 3D



Flow channel cut-through

**Flowchart
for mutation
detection**

Time

Isolation of genomic DNA

5 min.



Simultaneously PCR,
cantilever hybridization and
3' extension

1-2 hours

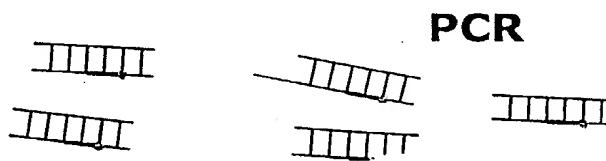
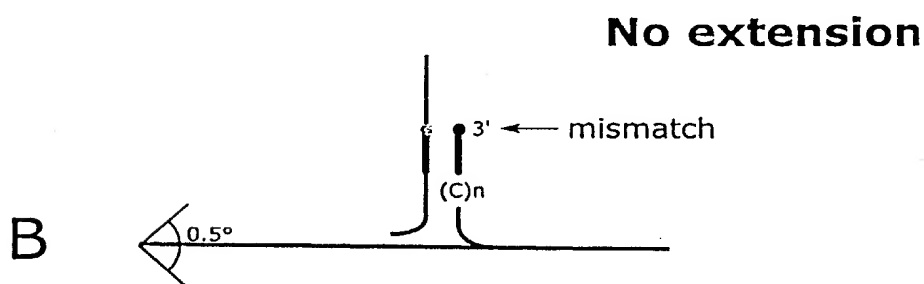
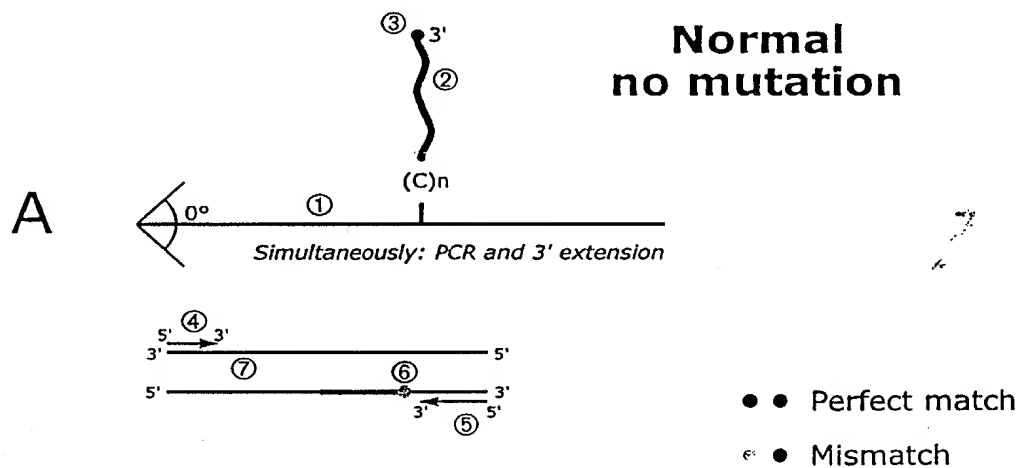


Result

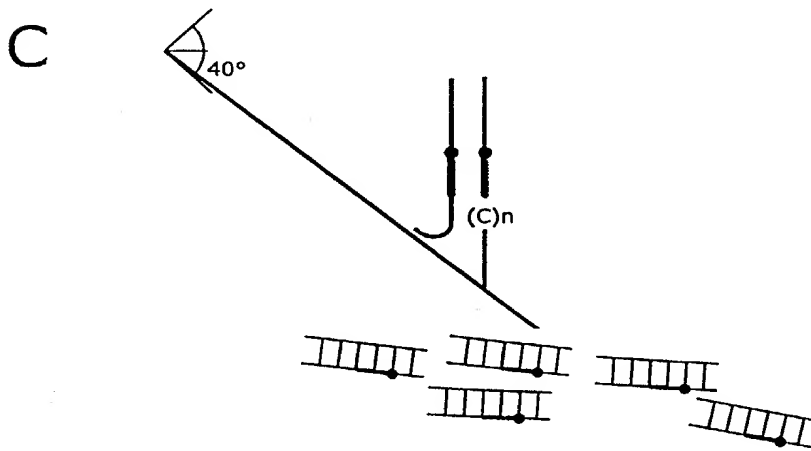
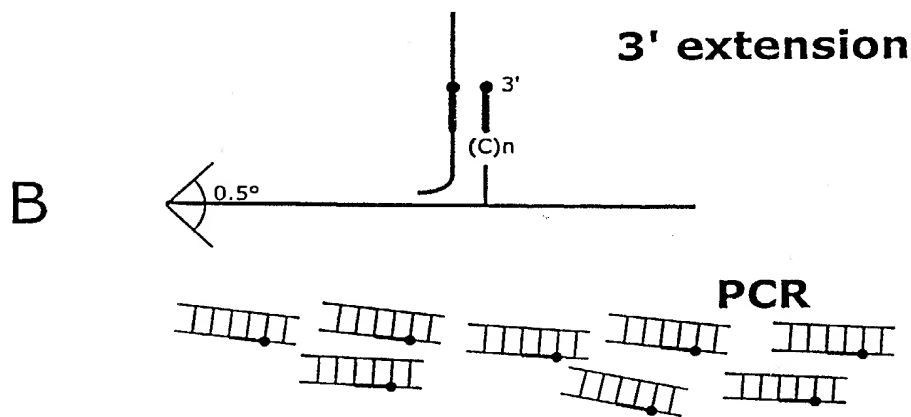
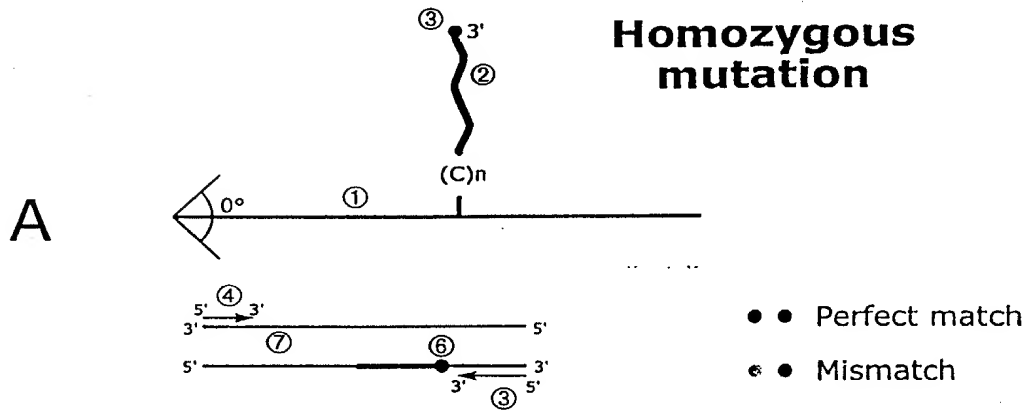
Instantly

1. Normal
2. Heterozygous mutation
3. Homozygous mutation

Start material: DNA

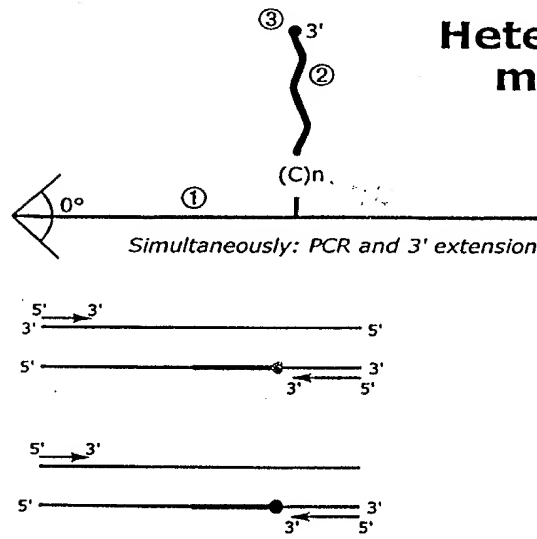


Homozygous mutation

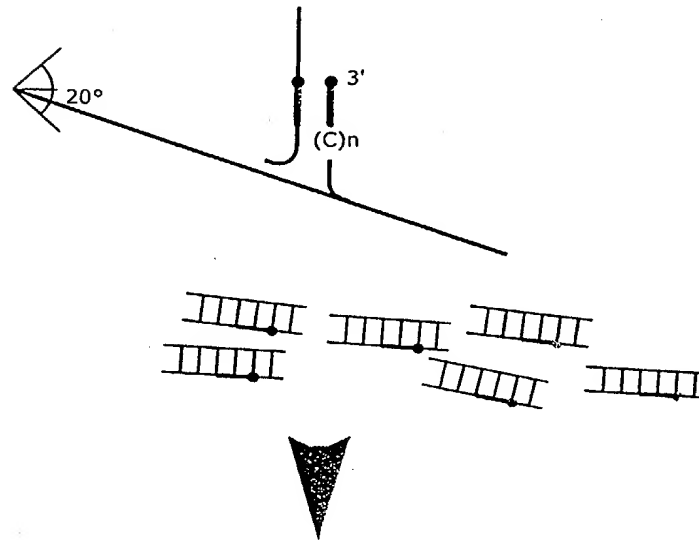


Heterozygous mutation

A

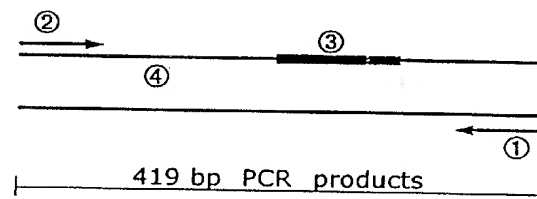


B



1/2 signal
compared to
homozygous mutation

**Detection
of $\Delta 508$ mutation
of the Cystic Fibrosis gene**



Time

Time

30 min.



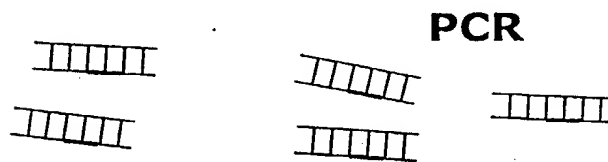
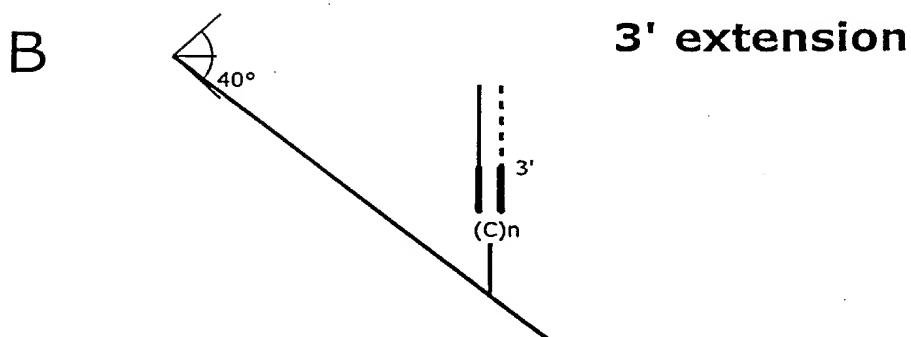
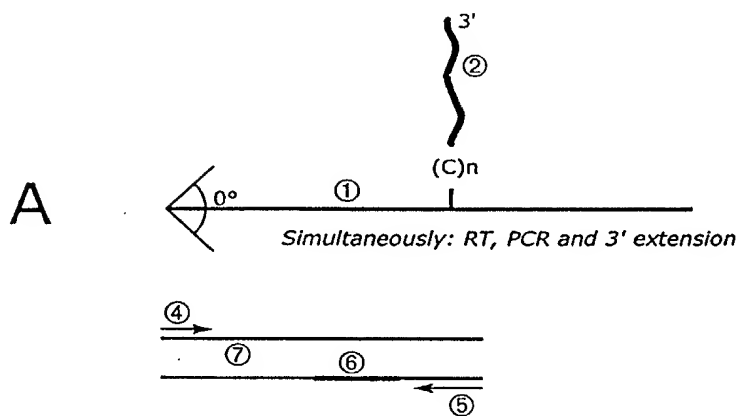
1-2 hours



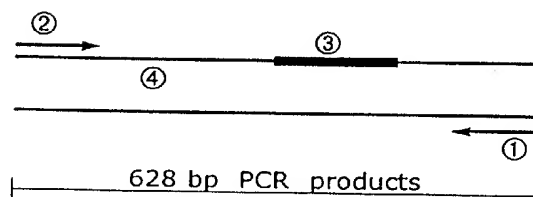
Instantly

[illegible]

Start material: RNA



Detection of Interleukin 6 (IL6)



**Detection
of Glyceraldehyde-3-Phosphate-
dehydrogenase (GAPD)**

